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PUBLIC INFORMATION STATEMENT...COMMENT REQUEST
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
105 PM EST FRI MAR 2 2007

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS
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EMERGENCY MANAGERS WEATHER INFORMATION NETWORK /EMWIN/
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OTHER NWS PARTNERS...USERS AND EMPLOYEES

FROM: RICHARD J. VOGT
DIRECTOR...WSR-88D RADAR OPERATIONS CENTER

SUBJECT: SOLICITING COMMENTS BY MARCH 30 2007 ON MODIFICATIONS TO WSR-88D
LEVEL II DATA STREAM AND FORMAT: EFFECTIVE WITH WSR-88D BUILD 10 /JANUARY
2008 BETA TEST/

STARTING IMMEDIATELY AND CONTINUING THROUGH MARCH 30 2007...THE NWS IS
SEEKING COMMENTS ON MODIFICATIONS TO WSR-88D LEVEL II DATA STREAM AND
FORMAT...EFFECTIVE WITH WSR-88D BUILD 10 /JANUARY 2008 BETA TEST/.

BACKGROUND:

THE NWS...U.S. AIR FORCE /USAF/ AND THE FEDERAL AVIATION ADMINISTRATION
/FAA/ WSR-88D SYSTEMS PRODUCE LEVEL II DATA...THE HIGHEST RESOLUTION
DIGITAL RADAR DATA AVAILABLE. THESE DATA CONTAIN REFLECTIVITY...RADIAL
VELOCITY AND SPECTRUM WIDTH DATA FROM ALL RADAR SCANS. LEVEL II DATA ARE
COLLECTED...DISTRIBUTED AND ARCHIVED IN REAL TIME FROM 133 WSR-88D SYSTEMS
VIA THE NWS WSR-88D LEVEL II DATA COLLECTION AND DISTRIBUTION NETWORK.

PROPOSED CHANGES:

BEGINNING IN WSR-88D SOFTWARE BUILD 10 /BETA TEST AT APPROXIMATELY SIX
SITES BEGINS IN JANUARY 2008 AND DEPLOYMENT TO ALL OPERATIONAL SITES
BEGINS IN APRIL 2008/...THE DATA FORMAT AND CONTENT OF THE LEVEL II DATA
STREAM WILL CHANGE.

THE FORMAT OF THE DATA WILL CHANGE FROM MSG1 TO MSG31. THIS FORMAT CHANGE
IS REQUIRED TO HANDLE THE PLANNED ADDITIONS TO THE WSR-88D LEVEL II DATA
STREAM - SUPER RESOLUTION DATA...BUILD 10...AND DUAL POLARIZATION
DATA...BUILD 11. THE LOCAL DATA MANAGER METHOD OF DISTRIBUTING LEVEL II
DATA VIA THE NWS WSR-88D LEVEL II DATA COLLECTION AND DISTRIBUTION NETWORK
WILL NOT CHANGE.

THE DATA STREAM WILL INCREASE IN SIZE DUE TO THE PLANNED CHANGE TO SUPER
RESOLUTION RADAR DATA IN BUILD 10. SUPER RESOLUTION DATA INCREASE THE
AZIMUTH RESOLUTION FROM 1 DEGREE TO 0.5 DEGREE...THE REFLECTIVITY DATA
RANGE RESOLUTION FROM 1 KM TO 0.25 KM...AND DOPPLER DATA RANGE FROM 230 KM
TO 300 KM FOR SPLIT CUTS - GENERALLY SCANS AT 1.5 DEGREES OR LOWER
ELEVATION. THE AMOUNT OF DATA COLLECTED AND TRANSMITTED DURING A VOLUME
SCAN WILL INCREASE BY A FACTOR OF APPROXIMATELY 2.3.

IT IS POSSIBLE THAT NETWORK-WIDE TRANSMISSION OF SUPER RESOLUTION DATA WILL NOT BEGIN IMMEDIATELY AFTER BUILD 10 IS DEPLOYED. IN THIS CASE...THE DATA WILL BE RECOMBINED BACK TO THE LEGACY DATA RESOLUTION. THE TIMING OF THE NETWORK-WIDE TRANSMISSION OF SUPER RESOLUTION DATA WILL BE CONTINGENT UPON THE AVAILABILITY OF FUNDS TO ACQUIRE THE REQUIRED COMMUNICATIONS BANDWIDTH INCREASE. THE FORMAT OF THE DATA WILL CHANGE TO MSG31 WITH THE DEPLOYMENT OF BUILD 10.

THE FOLLOWING TOOLS WILL BE MADE AVAILABLE TO LEVEL II USERS TO ASSIST THEIR TRANSITION TO THE NEW DATA FORMAT AND CONTENT. INFORMATION ON HOW TO ACCESS THE TOOLS AND OTHER RELATED INFORMATION WILL BE POSTED AND PERIODICALLY UPDATED ON THE LEVEL II WEBSITE AT /USE LOWER CASE/:

[HTTP://WWW.ROC.NOAA.GOV/NWS LEVEL 2](http://www.roc.noaa.gov/nws_level_2)

- DRAFT INTERFACE CONTROL DOCUMENTS DESCRIBING THE NEW DATA FORMAT AND DATA STREAM WILL BE AVAILABLE BY MARCH 31 2007.
- SAMPLE ARCHIVE DATA SETS USING THE NEW FORMAT AND DATA STREAM WILL BE AVAILABLE BY JUNE 30 2007.
- SAMPLE REAL-TIME DATA STREAMS USING THE NEW FORMAT AND DATA STREAM WILL BE AVAILABLE BY AUGUST 31 2007.

AN EARLY VERSION OF BUILD 10 SOFTWARE...EXECUTABLE AND SOURCE CODE...WILL BE AVAILABLE BY AUGUST 31 2007 FROM THE NWS COMMON OPERATIONS AND DEVELOPMENT ENVIRONMENT /CODE/ WEBSITE AT /USE LOWER CASE/:

[HTTP://WWW.WEATHER.GOV/CODE88D](http://www.weather.gov/code88d)

THE SOFTWARE WILL CONTAIN CODE TO READ SUPER RESOLUTION DATA AND TO RECOMBINE THE SUPER RESOLUTION DATA INTO LEGACY RESOLUTION DATA. THE RADAR PRODUCT GENERATOR /RPG/ ALGORITHMS AND 4-BIT BASE PRODUCTS WILL USE RECOMBINED DATA.

WE ARE SOLICITING COMMENTS BY MARCH 30 2007 ON THE PLANS TO CHANGE THE DATA FORMAT AND CONTENT ALONG WITH THE TOOLS TO BE MADE AVAILABLE. PLEASE SEND ANY COMMENTS ON THIS PLAN TO:

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NATIONAL PUBLIC INFORMATION STATEMENTS ARE ONLINE AT /USE LOWER CASE/:

[HTTPS://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE](https://www.weather.gov/notification/archive)

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